



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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OCT 17 2011

Ref: EPR-N

Ms. Pamela Murdock
Bureau of Land Management
Rawlins Field Office
1300 North Third
PO Box 2407
Rawlins, WY 82301

Re: Chokecherry and Sierra Madre Wind Energy
Project Draft Environmental Impact
Statement, CEQ#20110233

Dear Ms. Murdock:

The U.S. Environmental Protection Agency Region 8 has reviewed the Draft Environmental Impact Statement (EIS) prepared by the Bureau of Land Management for the Chokecherry and Sierra Madre Wind Energy Project (CCSM Project). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act (CAA), 42 U.S.C. Section 7609.

Project Background

The Power Company of Wyoming, LLC, proposes to construct and operate a wind energy project south of Rawlins in Carbon County, Wyoming. The proposed project would consist of two wind farm sites, the Chokecherry site and the Sierra Madre site, located approximately 9 miles apart. Total acreage of the two sites is 222,689 acres, including private, state, and federal land. The proposed CCSM Project includes:

- 1) A 2,000 to 3,000 megawatt (MW) wind farm consisting of approximately 1,000 wind turbine generators;
- 2) Ancillary facilities including step-up transformers, underground and overhead electric collection and communication lines, electric substations, an intermodal rail facility, and an operations and maintenance facility;
- 3) Constructing of new roads and upgrading existing roads; and,
- 4) A 230 kilovolt (kV) transmission line to transmit power from the wind farm.

Five alternatives for development of the CCSM Project are included in the Draft EIS; the BLM has not identified a Preferred Alternative. The alternatives are described by BLM as follows:

- 1) No Action: the BLM would deny the request to develop wind energy on public lands and would not provide access to private lands for wind development within the project area.
- 2) Alternative 1R – Applicant Proposed Alternative: a combined 1,000 turbines would be installed on 105,644 acres in the Chokecherry site and 109,916 acres in the Sierra Madre site, including 100,615 acres of federal land.
- 3) Alternative 2 – Checkerboard Only: the BLM would permit development on federal land only within the area of checkerboarded land jurisdiction. The 1,000 turbines would be installed on 105,813 acres in the Chokecherry site and 76,420 acres in the Sierra Madre site, including 81,233 acres of federal land.
- 4) Alternative 3 – No Miller Hill or South Sierra Madre: development would avoid sensitive areas to protect Visual Resource Management (VRM) Class II areas and areas with high wildlife concerns. The 1,000 turbines would be installed on a 105,813 acre Chokecherry site, and 50,070 acre Sierra Madre site, including 71,441 acres of federal land.
- 5) Alternative 4 – Private Lands Only: although not allowing wind energy development on public lands, BLM would provide right of way grants for access to develop wind energy facilities on private and/or state lands. Conceptually, the alternative would allow for siting of only 846 turbines, but would still allow the proponent to produce the desired 2,000 kW minimum power output.

The BLM has prepared a separate Draft EIS to fulfill a need for a VRM Plan Amendment in the Rawlins Field Office prompted by review of the proposed CCSM Project. The BLM will decide whether to amend the VRM decisions in the Chokecherry and Sierra Madre Project area as a prerequisite to approval of the wind energy project. The CCSM Project Draft EIS analysis is based on the BLM's Preferred Alternative for the VRM Plan Amendment.

EPA's Comments and Recommendations

The EPA has five areas of concern which are discussed below: air quality, surface water quality, protection of wetlands, impacts to sage grouse, and analysis of connected actions. We appreciate the development of mitigation measure GEN-1 Phased Development, which will help to reduce air quality and water quality issues related to fugitive dust and sedimentation, by reducing the amount of temporary surface disturbance during construction.

Air Quality

The EPA appreciates the detailed emissions inventory and analysis of potential air quality impacts associated with construction of the wind farm included in the Draft EIS. We are also pleased to see the five Applicant Committed Best Management Practices (BMPs) to reduce fugitive dust emissions, which are assumed to control emissions by 50%. Even with these BMPs, however, annual fugitive dust emissions are 6,287 tons PM₁₀ and 2,413 tons PM_{2.5} in the max emission year, which is a substantial amount of dust, particularly considering the proposed project's proximity to the Mt. Zirkel Wilderness Class I area. The EPA is therefore pleased to see that "a screen analysis shows that these emissions would not cause a violation of ambient air quality standards or degradation of regional air quality" (Draft EIS page 4.1-4). For disclosure purposes, please provide additional information in the Final EIS regarding what method was used in the screen analysis as well as summarize the results obtained. This information will help to clarify any potential concerns, or lack thereof, relating to the fugitive dust emissions.

The EPA recommends that, in addition to the Applicant Committed BMPs, the BLM include Proposed Mitigation Measures for air quality in Section 4.1.6 of the Draft EIS and Appendix C Table C-4, in case fugitive dust impacts are more severe than anticipated. Additional mitigation could include resin treatments (84% control efficiency), paving the roads (99% control efficiency), or contingency plans such as ceasing construction activities when wind speeds are greater than 30 mph. The EPA also recommends use of a monitoring provision, for example: “limit visible dust emissions to 20% opacity by watering, graveling, phasing of work, applying water during active operations or applying chemical treatments to the unpaved roads.”

While the Draft EIS analysis and discussion of potential air quality impacts focuses on construction, dust particulates from ongoing operations on roadways are also a concern. Depending on the alternative selected, 335 to 477 miles of road will remain open throughout the project life with continuous use for turbine maintenance. The EPA recommends that dust control mitigation strategies for operations and maintenance activities be included in the Final EIS and be implemented as operating requirements to minimize air quality impacts.

We appreciate the disclosure of greenhouse gas emissions associated with construction of the proposed wind farm and the inclusion of detailed emission spreadsheets indicating the sources of emissions in Appendix H. Regarding operational emissions, however, the brief discussion leaves us with two questions. First, please provide additional detail clarifying the source(s) of the estimated 1,400 to 2,100 tons CO₂ per year during facility operation. Second, it would be helpful if an estimate of emissions from other electrical grid power generation assumed to be offset by the proposed project was provided. Clarification on these two points will help to more clearly convey what is likely to be a positive impact of the proposed project on greenhouse gas emissions and climate change.

Surface Water Quality

With the substantial amount of disturbance proposed in soils with ‘high’ and ‘moderate to high’ runoff potential as well as ‘moderate/severe’ and ‘severe’ water erosion, and with up to 541 road-stream crossings, protection of water quality is an important concern for the proposed project. We are therefore pleased to see the plans to minimize impacts at stream crossings as well as impacts resulting from disturbance in upland locations. The EPA is also pleased to see that a Stormwater Pollution Prevention Plan (SWPPP) has been developed for the project, and recommends that this plan be included as an appendix to the Final EIS. Also, please clarify in the Final EIS whether “complete reclamation” in the context of the SWPPP means at the close of the construction phase or following decommissioning and final site reclamation (Draft EIS page 4.13-8). We recommend that stormwater BMPs and monitoring activities continue throughout project operation, and also support development of an operational plan for finding and solving runoff problems, such as erosion from an access road or turbine pad. Finally, we commend the BLM on plans to monitor stream water quality throughout construction, operation, and decommissioning of the project. Please include additional detail on the proposed monitoring plan in the Final EIS, such as location, frequency and method of monitoring.

Protection of Wetlands

Although wetland mapping is incomplete for the project area, the Draft EIS identifies the presence of approximately 5,600 acres of riparian and wetland areas, and notes that the amount of wetland found on the ground will likely be greater than this figure. Given the large amount of surface disturbance associated with the proposed project, and the presence of wet meadows and other sensitive wetland

types, the EPA is therefore concerned about the potential for impacts to wetlands. For disclosure, we recommend that the EIS include a more complete description of the process and timing for future delineation of wetland boundaries. We are pleased to see that the BLM will require avoidance of surface disturbing activities within 500 feet of wetlands on BLM land. It would be helpful to clarify what buffer distance is included in the applicant's commitment to avoid surface disturbing activities "to the maximum extent practicable" (pg. 4.11-10). Also, please clarify that wetland protection measures will apply to all wetlands regardless of jurisdiction, in accordance with Executive Order 11990.

Impacts to Greater Sage-Grouse

The Draft EIS considers five significance criteria, from the Rawlins Resource Management Plan, in the assessment of impacts to special status species. The EPA is concerned that, although impacts do vary somewhat among alternatives, impacts to greater sage-grouse due to habitat loss and disturbance during construction and operation would exceed all five significance criteria under each of the four action alternatives. We are pleased to see that Appendix C includes environmental constraints required by BLM to reduce impacts to greater sage-grouse, including surface use restrictions and timing limitations, however, it is not clear whether the impacts described in the Draft EIS consider these constraints. Please clarify in the Final EIS whether these measures may reduce impacts below any of the significance criteria. For significance criteria that may still be exceeded, we recommend that the Final EIS discuss any additional potential mitigation measures to reduce anticipated impacts.

Analysis of Connected Actions


The Draft EIS asserts that "the wind farm project would not be possible without overhead transmission lines," and therefore that any one of five applications before BLM Wyoming for large scale overhead electric transmission line projects could be considered a connected action (Draft EIS pg. 2-1). We appreciate the information about these transmission projects provided in the cumulative impacts analysis section, including quantifying disturbance acreages within sub-watersheds of the project area to assess the potential for cumulative impacts to water resources. However, for clarity and full consideration of all direct and indirect impacts of the proposed project, and because a transmission line connected to the proposed wind farm will have additional impacts outside of the project area, we recommend that connected actions be distinguished from those future activities that will occur in the cumulative impact area regardless of the outcome of this NEPA analysis. Many EISs perform a robust analysis of the impacts of connected actions by including them as a separate subsection in the discussion of alternatives (Chapter 2) and environmental impacts (Chapter 4), however, this is often in a situation in which the connected actions themselves would not be subject to NEPA. Since NEPA is already underway for some or all of the proposed transmission line projects, we recommend that information on the potential impacts from a representative EIS for one of these possible connected actions be briefly summarized and incorporated by reference into the Final EIS. Relevant information includes that already disclosed in the cumulative impacts section as well as any additional information needed to clearly indicate how the proposed action will interact with transmission line installation.

Conclusion and EPA's Rating

Based upon our review of the Draft EIS for the CCSM Project, we are rating this document as "Environmental Concerns – Adequate" (EC-1). Because the preferred alternative was not identified in the Draft EIS, our rating is based on Alternatives 1R, 2, 3, and 4 (we do not rate the no action alternative). The "EC" rating indicates that our review has identified environmental impacts that should be avoided in order to fully protect the environment. The "1" rating indicates the EPA's belief that the Draft EIS adequately sets forth the environmental impacts of the project alternatives. While no further analysis is necessary, our comments above recommend the addition of clarifying information to the Final EIS. Our comments on the Visual Resource Management Plan Amendment Draft EIS are submitted under separate cover.

If you have any questions or would like to discuss our comments, please contact me at (303) 312-6925. You may also contact Molly Brodin, lead reviewer for this project, at (303) 312-6577 or by email at brodin.molly@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Bohan', with a long horizontal flourish extending to the right.

Suzanne J. Bohan

Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Enclosure

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO -- Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC -- Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO -- Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU -- Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 -- Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 -- Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new, reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 -- Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

